CASE OF A CHRONIC INFLAMMATORY TUBERCULO-VESICULAR SKIN DISEASE.*

BY ARTHUR VAN HARLINGEN, M.D.,

Chief of the Skin Clinic, Hospital of the University of Pennsylvania.

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THE following case seems to present sufficient peculiarity to separate it from any affection with which I am familiar, and I desire to place it on record with sufficient detail, in order that it may be grouped with any similar cases that may be brought to light in the future. I have given it the rather long and somewhat indefinite title inscribed above simply with a view of presenting one or two features which are characteristic among the symptoms of the affection, and which may catch the eye of some future investigator.

Theresa U., an unmarried German woman, 39 years of age, was a patient in the Pennsylvania Hospital, under the care of Dr. James H. Hutchinson, to whom I am indebted for the opportunity of examining and recording the case. I first saw her on November 20, 1878, when the following notes regarding her history were obtained with some difficulty, on account of the patient's extreme sluggishness, almost stupidity, unusual even for a person of her station.

Her grandfather and grandmother were healthy, and died at an advanced age. Her father also was healthy; he died of apoplexy. Her mother suffered from rheumatism, followed by a decline, from which she died. One sister died at two and a half years of age, of a large tumor over the sacrum. The patient herself had always enjoyed fair health, with the exception of an attack of rheumatism at the age of 17, and the chronic skin affection for which she sought relief. The latter, she believed, must have made its first appearance in the earlier years of her life, although she had no clear recollection of it before her fifteenth year. A rather sudden exacerbation, during which the disease attacked the arms, neck, face, and back, in the form of papules, accompanied by violent itching, occurring at that

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time, she had since then watched its progress more carefully. The eruption soon spread to the lower extremities, became chronic, and never subsequently disappeared altogether, although it sometimes diminished temporarily during the progress of some acute intercurrent malady, as intermittent fever, pleurisy, etc. It was usually worse during the winter, spring, and summer, and better during early autumn. Acute exacerbations took place from time to time, in the course of which certain painful tumors, probably of lymphatic origin, appeared in the calf of the leg and in the thigh. These were hard, red, and painful; they disappeared in the course of a few weeks.

The patient, who was a short, sturdy-looking woman, but with a marked lateral curvature of the spine, presented a variety of skin lesions, some of which were undoubtedly eczematous in character, others resembling more closely lichen planus, which the patient insisted occasionally came out suddenly overnight, and others of a peculiar character to be described. The scalp was, at the time of examination, quite free from disease, though it had been the seat of lesions at previous periods. The face and neck showed a number of dusky-red, ill-defined papules, coalescing in places. Here and there, as on the side of the nose and eyebrow, there were larger, more tubercular lesions, violaceous in color, about a centimetre in diameter, slightly elevated, smooth, and without sensation. The back was the seat of what appeared to be an extensive papular eczema, attended with much itching. The extensor surface of the forearms, and to a less degree the arms, was infiltrated and covered with variously-sized small papular lesions, like those of lichen planus, and very itchy. Above the elbow were a few scattered tubercular or nodular lesions, like those on the nose, but apparently buried in part in the skin, with others like imbedded shot. The flexor surface of the forearms and the anterior aspect of the trunk were free from disease. The backs of the hands showed a few ill-defined lesions.

These lesions about the trunk and upper limbs were all more or less undefined, and not characteristic, but those which were found on the lower limbs presented such marked peculiarities that an especial study was made of them. They were chiefly single and scattered, occurring on either leg, to the number of forty or fifty, in all stages of progress, only a few being situated above the knees and one or two below the ankles. The soles were quite free. They were large, flat, nodular tubercles, round or oval in shape, finger-nail- to thumb-nail-sized, of ill-defined outline, rising gradually from the surrounding skin to the height of two or three millimetres, quite firm and hard in consistency, mostly solid, but now and then the newer lesions showing a reservoir of sero-pus in the centre. The color of the lesions was usually a livid violet or dusky grayish-brown fading into the skin around. They were not at all scaly. Here and there, scattered among these lesions, could be seen small roundish patches of a semi-cicatricial character, of a dead-white color, surrounded by a deep pigmentation, and evidently the traces of former lesions. A few deeper cicatrices pointed to the seat of some lesions

of an ulcerative character, which had occurred so long before that the patient could give no account of them.

In the course of the weeks following my first examination of the patient I had an opportunity of watching the course of the disease, and especially the development of the individual lesions upon the limbs, with the following result:

The first symptom of the appearance of a lesion was a localized itching, soon followed by an wheal-like elevation, quite firm and hard to the touch. At the end of twelve to eighteen hours the lesion appeared fully developed. It was then 1 to 1.5 centimetres in diameter, and 2 to 3 millimetres high, flat, mint-drop-shaped, and not distinctly defined from the surrounding skin. The surface was smooth and somewhat shiny, dusky-pink in color, and surrounded by a pinkish areola, the color disappearing entirely upon pressure, and returning quickly upon its removal. Within a day or two further changes occurred; a fluid exudation was poured out, and a small cup-like depression could be seen hollowed out of the centre of the lesion, filled with milky serum and covered with the horny layer of the epidermis as with a plate of glass. The finger passed over the lesion could detect no elevation like that of an ordinary pustule or vesicle. Undisturbed, the fluid deposit gradually became altogether purulent, and was finally absorbed, the central part of the lesion became dry and covered with a scale, which was subsequently thrown off, and the lesion became more and more firm and condensed, duskier and ashen-gray in color and pigmented, particularly about its border. Several weeks were required for the lesion to undergo evolution to this point, but once attained this condition might exist with comparatively little change for months, gradual absorption taking place with the residuum of a curious round, white, atrophic patch, surrounded by a zone of deep pigment, as above alluded to. In some cases, after years, all trace of the lesion would, by the patient's account, disappear. In other instances, after a longer or shorter period of quiescence, the lesion seemed to take on fresh action, and a new centre of inflammation would develop within it, to run the same course as before. This curious recurrence of the lesion in the same locality was a marked and peculiar characteristic of the affection, and one which I had occasion to observe in several instances. It was frequently connected with sympathetic enlargement of the inguinal glands of the affected side.

With regard to subjective symptoms, these characteristic lesions presented a certain amount of itching and tenderness on their earliest appearance; during their later course, however, they were almost entirely without sensation, or occasionally gave rise to slight pruritus.

While under observation a month or two later the lymphatics of the left thigh, just above the knee, became inflamed, and a red, tender, sausage-shaped tumor, several inches in length, appeared in their course, which disappeared again in a short time spontaneously.

No perceptible influence was exercised by this attack upon the appearance of the skin lesions. The patient said she had suffered from previous attacks of a similar character.

The patient was under my observation at intervals during several months. She took for a while iodide of potassium, which seemed to aggravate the eczematous eruption without affecting the other lesions. Mercury in tonic doses, with other tonics, was taken without apparent benefit, no marked amelioration in the symptoms having taken place. She finally disappeared last summer, and has not since been heard from.

The patient's general health, it should be said, was always good. She was not very strong, however, and was peculiarly sensitive to cold and subject to chills. Cutis anserina appeared when her clothes were partially removed, even in a warm room. No urticarial lesions could be developed by scratching, etc.

I excised at different times two of the peculiar characteristic lesions from the skin of the leg, one a recent one, about twenty-four hours old, the other an old, indurated, nodule which had been the seat of recurrent attacks. My friend, Dr. Longstreth, very kindly made sections of these specimens with the aid of the freezing microtome, which, on examination, showed the following appearances:

A section from a recent lesion, which had contained fluid deposit, examined with a low power (× 60), showed a view of the lesion taken through the centre of the cavity. The various strata of the cutis and epidermis were present in nearly their normal relative appearance, though somewhat thickened, but the upper layers of the epidermis, above the stratum lucidum, were entirely separated from the lower layers by the effusion. They seemed to be split off and lifted above it, covering the fluid cavity like a roof, the horny cells remaining firmly fixed together. The use of a higher power (× 250) served merely to confirm these appearances. The roof or cover of the vesicle was composed of hard, horny cells, not staining at all with carmine, while the floor of the vesicle was made up of more succulent cells, coloring well. The lower layers of the epidermis and the rete were infiltrated with a considerable number of granular inflammation cells, and both rete and epidermis were somewhat thickened. The papillæ were somewhat hypertrophied, and there was hyperplasia of the interpapillary portions of the rete, giving a club-shaped appearance to these processes. The derma was infiltrated with inflammation cells, which separated the bundles of connective tissue. The blood-vessels were not markedly changed, and the portions of hairs, sebaceous and sweat glands, all of which were visible in the sections, were to all appearance normal.

Sections of the older lesion were submitted to Dr. Charles Heitzman, of New York, for examination. His report is as follows: "The derma considerably thickened, built up by coarse bundles of connective tissue, freely decussating; between the bundles numerous protoplasmic bodies and relatively scanty blood-vessels. No trace of epithelial formations, such as root-sheaths of hairs, sebaceous and

sudoriparous glands. The papillæ very much enlarged, and made up of much coarser bundles of connective tissue than normal. Many papillæ hold capillary blood-vessels, running an unusually straight course. A number of these capillaries are transformed into solid pigmented strings. With higher powers of the microscope we recognize in these strings a very narrow calibre, not permeable for red blood-corpuscles, and a thickened wall, which is built up by several layers of endothelia, richly supplied with dark brown pigment granules. Instead of capillaries, straight bundles of connective tissue are also met with, which, owing to the presence of pigment granules, may be considered obliterated and atrophied blood-vessels. The rete mucosum is considerably thickened, and all its strata profusely supplied with dark brown pigment granules. In some of the deep valleys between the enlarged papillæ there are seen ducts of sudoriparous glands, following a slightly wavy course, the epithelium of which is not pigmented. The calibre of these tubes is very narrow, as if compressed. The epidermis is very much thickened.

"The changes noted are found to the most marked degree in the middle of the specimen, indicating a nodule or tubercle. The hypertrophied papillæ and the increased epithelial formation is most marked on top of the tubercle, while towards the periphery all changes gradually become less striking. The hypertrophy of the derma is, however, almost uniform throughout the length of the specimen.

"The diagnosis is: hyperplasia of the derma, the rete mucosum, and the epidermis, due to a chronic inflammatory process. Pigmentation of the rete mucosum. Destruction of all deeper epithelial formations. Pigment-atrophy of the capillary blood-vessels within the papillæ. The latter feature may be explained by compression of the capillaries by the surrounding hyperplastic connective tissue, up to the loss of permeability for red blood-corpuscles. The remnant of these, enclosed in the narrow calibre, were destroyed, and supplied the adjacent hyperplastic endothelia with their coloring matter, which was in turn transformed into pigment granules."

129 S. Fifteenth St., Philadelphia.